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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

CALIFORNIA, USA ONLY
The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.
"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

ASRock Website: http://www.asrock.com

Published November 2012
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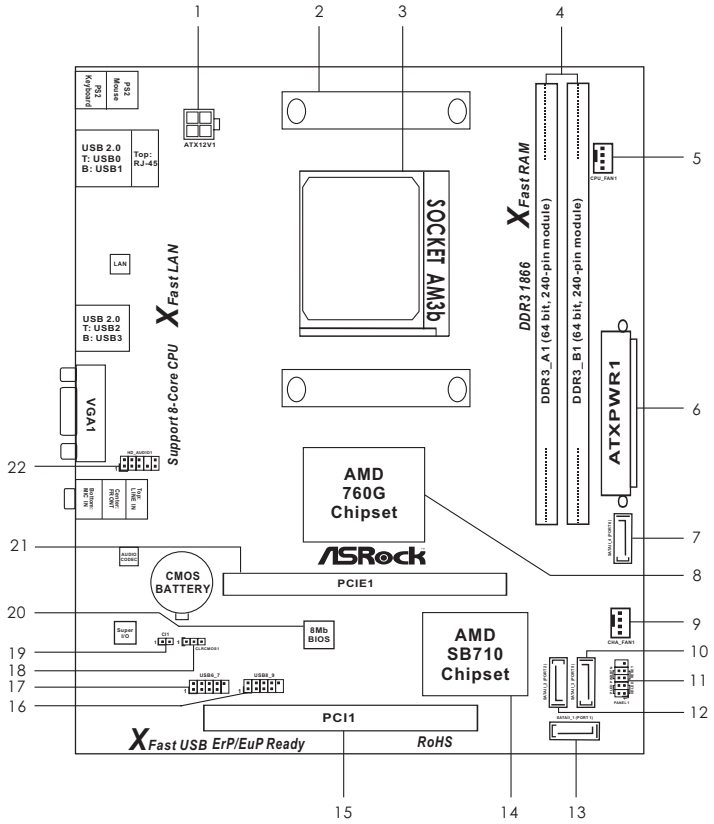
English

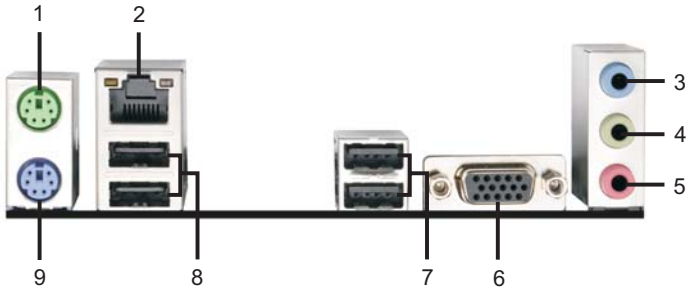
Motherboard Layout



1	ATX 12V Power Connector (ATX12V1)	12	SATA2 Connector (SATAII_2 (PORT 2))
2	CPU Heatsink Retention Module	13	SATA2 Connector (SATAII_1 (PORT 1))
3	AM3+ CPU Socket	14	Southbridge Controller
4	2 x 240-pin DDR3 DIMM Slots (Dual Channel: DDR3_A1, DDR3_B1)	15	PCI Slot (PCI1)
5	CPU Fan Connector (CPU_FAN1)	16	USB 2.0 Header (USB8_9)
6	ATX Power Connector (ATXPWR1)	17	USB 2.0 Header (USB6_7)
7	SATA2 Connector (SATAII_4 (PORT 6))	18	Clear CMOS Jumper (CLRCMOS1)
8	Northbridge Controller	19	Chassis Intrusion Header (CI1)
9	Chassis Fan Connector (CHA_FAN1)	20	SPI Flash Memory (8Mb)
10	SATA2 Connector (SATAII_3 (PORT 5))	21	PCI Express 2.0 x16 Slot (PCIE1)
11	System Panel Header (PANEL1)	22	Front Panel Audio Header (HD_AUDIO1)

English

I/O Panel



1	PS/2 Mouse Port (Green)	6	VGA Port (VGA1)
* 2	LAN RJ-45 Port	7	USB 2.0 Port (USB23)
3	Line In (Light Blue)	8	USB 2.0 Ports (USB01)
** 4	Front Speaker (Lime)	9	PS/2 Keyboard Port (Purple)
5	Microphone (Pink)		

* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

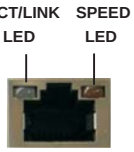
LAN Port LED Indications

Activity/Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED

Status	Description
960GM-VGS3 FX:	
Off	10Mbps connection
Orange	100Mbps connection
Green	1Gbps connection
960GM-VS3 FX:	
Off	10Mbps connection
Orange	100Mbps connection



LAN Port

** To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. Please refer to below steps for the software setting of Multi-Streaming.

For Windows® XP:

After restarting your computer, you will find “Mixer” tool on your system. Please select “Mixer ToolBox” , click “Enable playback multi-streaming”, and click “ok”. Choose “2CH” or “4CH” and then you are allowed to select “Realtek HDA Primary output” to use Rear Speaker and Front Speaker, or select “Realtek HDA Audio 2nd output” to use front panel audio. Then reboot your system.

For Windows® 8 / 7 / Vista™:

After restarting your computer, please double-click “Realtek HD Audio Manager” on the system tray. Set “Speaker Configuration” to “Quadraphonic” or “Stereo”. Click “Device advanced settings”, choose “Make front and rear output devices playbacks two different audio streams simultaneously”, and click “ok”. Then reboot your system.

English

1. Introduction

Thank you for purchasing ASRock ***960GM-VGS3 FX / 960GM-VS3 FX*** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

This Quick Installation Guide contains introduction of the motherboard and step-by-step installation guide. More detailed information of the motherboard can be found in the user manual presented in the Support CD.

Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website http://www.asrock.com

If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.
www.asrock.com/support/index.asp

1.1 Package Contents

ASRock ***960GM-VGS3 FX / 960GM-VS3 FX*** Motherboard (Micro ATX Form Factor)
ASRock ***960GM-VGS3 FX / 960GM-VS3 FX*** Quick Installation Guide
ASRock ***960GM-VGS3 FX / 960GM-VS3 FX*** Support CD
2 x Serial ATA (SATA) Data Cables (Optional)
1 x I/O Panel Shield

ASRock Reminds You...

To get better performance in Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit, it is recommended to set the BIOS option in Storage Configuration to AHCI mode. For the BIOS setup, please refer to the "User Manual" in our support CD for details.

English

1.2 Specifications

Platform	- Micro ATX Form Factor - Solid Capacitor for CPU power
CPU	- Support for Socket AM3+ processors - Support for Socket AM3 processors: AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors - Supports 8-Core CPU - Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration) - AMD LIVE!™ Ready - Supports AMD's Cool 'n' Quiet™ Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport 3.0 (HT 3.0) Technology
Chipset	- Northbridge: AMD 760G - Southbridge: AMD SB710
Memory	- Dual Channel DDR3 Memory Technology - 2 x DDR3 DIMM slots - Support DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, un-buffered memory (see **CAUTION 1**) - Max. capacity of system memory: 16GB (see **CAUTION 2**)
Expansion Slot	- 1 x PCI Express 2.0 x16 slot (PCIE1 @ x16 mode) - 1 x PCI slot
Graphics	- Integrated AMD Radeon 3000 graphics - DX10 class iGPU, Pixel Shader 4.0 - Max. shared memory 512MB - Supports D-Sub with max. resolution up to 2048x1536 @ 60Hz
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, speed 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, speed 10/100 Mb/s - Supports Wake-On-LAN - Supports PXE
Rear Panel I/O	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port

English

	- 1 x VGA Port - 4 x Ready-to-Use USB 2.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in / Front Speaker / Microphone
Connector	- 4 x SATA2 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and “Hot Plug” functions - 1 x Chassis Intrusion header - 1 x CPU Fan connector (4-pin) - 1 x Chassis Fan connector (4-pin) - 24 pin ATX power connector - 4 pin 12V power connector - Front panel audio connector - 2 x USB 2.0 headers (support 4 USB 2.0 ports)
BIOS Feature	- 8Mb AMI Legal BIOS - Supports “Plug and Play” - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU, VCCM, NB Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser and Toolbar
Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU Fan Tachometer - Chassis Fan Tachometer - CPU Quiet Fan - CPU Fan Multi-Speed Control - CASE OPEN detection - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)

* For detailed product information, please visit our website: http://www.asrock.com

English

WARNING

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using third-party overclocking tools. Overclocking may affect your system's stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

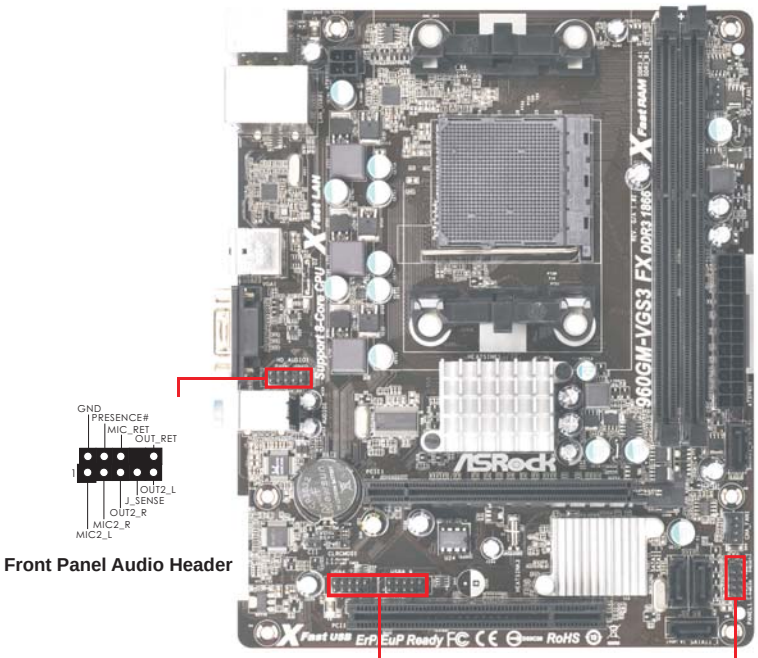
CAUTION!

1. Whether 1866/1600MHz memory speed is supported depends on the AM3/AM3+ CPU you adopt. If you want to adopt DDR3 1866/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.
   ASRock website: http://www.asrock.com
2. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 8 / 7 / Vista™ / XP. For Windows® 64-bit OS with 64-bit CPU, there is no such limitation.

English

1.3 Pin Header Easy Installation Guide

ASRock motherboard is equipped with pin headers with obvious colors which indicate you to recognize the crucial headers more easily. Please refer to below illustrations for the pin definition of onboard headers. If you want to have more information about the usage of these headers, please refer to “Jumpers Setup“ and “Onboard Headers and Connectors“ for details.



Front Panel Audio Header

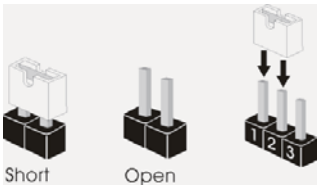
USB 2.0 Header

System Panel Header

English

1.4 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is “Short”. If no jumper cap is placed on pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when jumper cap is placed on these 2 pins.



Jumper	Setting	Description
Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 18)	1_2 Default; 2_3 Clear CMOS	

Note: CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile, 1394 GUID and MAC address will be cleared only if the CMOS battery is removed.

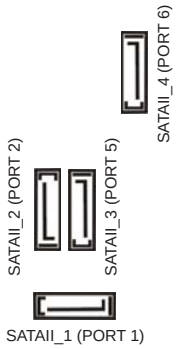
If you clear the CMOS, the case open may be detected. Please adjust the BIOS option “Clear Status” to clear the record of previous chassis intrusion status.

English

1.5 Onboard Headers and Connectors

Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

Serial ATA2 Connectors
(SATAII_1 (PORT 1): see p.2, No. 13)
(SATAII_2 (PORT 2): see p.2, No. 12)
(SATAII_3 (PORT 5): see p.2, No. 10)
(SATAII_4 (PORT 6): see p.2, No. 7)

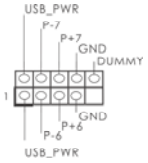


These four Serial ATA2 (SATA2) connectors support SATA data cables for internal storage devices. The current SATA2 interface allows up to 3.0 Gb/s data transfer rate.

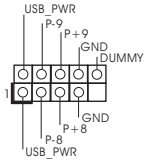
Serial ATA (SATA) Data Cable
(Optional)

Either end of the SATA data cable can be connected to the SATA2 hard disk or the SATA2 connector on this motherboard.

USB 2.0 Headers
(9-pin USB6_7)
(see p.2 No. 17)



(9-pin USB8_9)
(see p.2 No. 16)



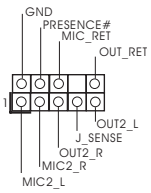
Besides four default USB 2.0 ports on the I/O panel, there are two USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

English

Front Panel Audio Header

(9-pin HD_AUDIO1)

(see p.2 No. 22)



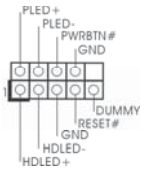
This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
   A. Connect Mic_IN (MIC) to MIC2_L.
   B. Connect Audio_R (RIN) to OUT2_R and Audio_L (LIN) to OUT2_L.
   C. Connect Ground (GND) to Ground (GND).
   D. MIC_RET and OUT_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
   E. To activate the front mic.
      For Windows® XP / XP 64-bit OS:
      Select "Mixer". Select "Recorder". Then click "FrontMic".
      For Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
      Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

System Panel Header

(9-pin PANEL1)

(see p.2 No. 11)



This header accommodates several system front panel functions.

Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

PWRBTN (Power Switch):
Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.
RESET (Reset Switch):
Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.
PLED (System Power LED):
Connect to the power status indicator on the chassis front panel. The

English

LED is on when the system is operating. The LED keeps blinking when the sys-tem is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

HDLED (Hard Drive Activity LED):

Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assign-ments are matched correctly.

Chassis Fan Connector

(4-pin CHA_FAN1)

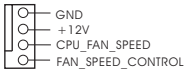
(see p.2 No. 9)

Please connect the fan cable to the fan connector and match the black wire to the ground pin.

CPU Fan Connector

(4-pin CPU_FAN1)

(see p.2 No. 5)

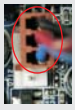


Please connect the CPU fan cable to the connector and match the black wire to the ground pin.

Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

Pin 1-3 Connected

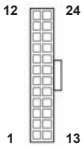
3-Pin Fan Installation



ATX Power Connector

(24-pin ATXPWR1)

(see p.2 No. 6)



Please connect an ATX power supply to this connector.

English

Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation

ATX 12V Power Connector
(4-pin ATX12V1)
(see p.2 No. 1)

Please connect an ATX 12V power supply to this connector.

Chassis Intrusion Header
(2-pin CI1)
(see p.2 No. 19)

This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

English

2. BIOS Information

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

3. Software Support CD information

This motherboard supports various Microsoft® Windows® operating systems: 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the BIN folder in the Support CD to display the menus.

English

Spezifikationen

Plattform	- Micro ATX-Formfaktor - Festkondensator für CPU-Leistung
CPU	- Unterstützung von Socket AM3+-Prozessoren - Unterstützung von Socket AM3-Prozessoren: AMD Phenom™ II X6 / X4 / X3 / X2 (außer 920 / 940) / Athlon X4 / X3 / X2 / Sempron-Prozessor - Acht-Kern-CPU-bereit - Unterstützt AMD OverDrive™ mit ACC-Funktion (Advanced Clock Calibration, Erweiterte Taktkalibrierung) - AMD LIVE!™-bereit - Unterstützt Cool 'n' Quiet™-Technologie von AMD - FSB 2600 MHz (5.2 GT/s) - Unterstützt Untied-Übertaktungstechnologie - Unterstützt Hyper-Transport- 3.0 Technologie (HT 3.0)
Chipsatz	- Northbridge: AMD 760G - Southbridge: AMD SB710
Speicher	- Unterstützung von Dual-Kanal-Speichertechnologie - 2 x Steckplätze für DDR3 - Unterstützt DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, ungepufferter Speicher - Max. Kapazität des Systemspeichers: 16GB
Erweiterungs-Steckplätze Onboard-VGA	- 1 x PCI-Express-2.0-x16-Steckplätze (PCIE1: x16-Modus) - 1 x PCI -Steckplätze - Integrierte AMD Radeon 3000-Grafik - DX10 Klasse iGPU, Pixel Shader 4.0 - Maximal gemeinsam genutzter Speicher 512MB - Unterstützt D-Sub mit einer maximalen Auflösung von 2048 x 1536 bei 60 Hz
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, speed 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, speed 10/100 Mb/s - Unterstützt PXE
E/A-Anschlüsse an der Rückseite	I/O Panel - 1 x PS/2-Mausanschluss - 1 x PS/2-Tastaturanschluss - 1 x VGA port

	- 4 x Standard-USB 2.0-Anschlüsse - 1 x RJ-45 LAN Port mit LED (ACT/LINK LED und SPEED LED) - HD Audiobuchse: Audioeingang / Lautsprecher vorne / Mikrofon
Anschlüsse	- 4 x SATA2 3,0 GB/s-Anschlüsse, unterstützen RAID- (RAID 0, RAID 1, RAID 10 und JBOD), NCQ-, AHCI-und Hot Plug Funktionen - 1 x Verteiler für Gehäuseeindringversuche - 1 x CPUlüfter-Anschluss (4-pin) - 1 x Gehäuselüfter-Anschluss (4-pin) - 24-pin ATX-Netz-Header - 4-pin anschluss für 12V-ATX-Netzteil - Anschluss für Audio auf der Gehäusevorderseite - 2 x USB 2.0-Anschlüsse (Unterstützung 4 zusätzlicher USB 2.0-Anschlüsse)
BIOS	- 8Mb AMIs Legal BIOS - Unterstützung für “Plug and Play” - ACPI 1.1-Weckfunktionen - JumperFree-Modus - SMBIOS 2.3.1 - CPU, VCCM, NB Stromspannung Multianpassung
Support-CD	- Treiber, Dienstprogramme, Antivirussoftware (Probeversion), CyberLink MediaEspresso 6.5-Testversion, Google Chrome Browser und Toolbar
Hardware Monitor	- Überwachung der CPU-Temperatur - Motherboardtemperaturerkennung - Drehzahlmessung für CPUlüfter - Drehzahlmessung für Gehäuselüfter - Geräuscharmer CPUlüfter - Mehrstufige Geschwindigkeitsteuerung für CPUlüfter - GEHÄUSE OFFEN-Erkennung - Spannungsüberwachung: +12V, +5V, +3.3V, Vcore
Betriebssysteme	- Unterstützt Microsoft® Windows® 8 / 8 64-Bit / 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit / XP / XP Media Center / XP 64-Bit
Zertifizierungen	- FCC, CE, WHQL - Gemäß Ökodesign-Richtlinie (ErP/EuP) (Stromversorgung gemäß Ökodesign-Richtlinie (ErP/EuP) erforderlich)

* Für die ausführliche Produktinformation, besuchen Sie bitte unsere Website: http://www.asrock.com

Spécifications

Format	- Facteur de forme Micro ATX - Condensateur résistant pour alimentation de processeur
CPU	- Prise en charge des processeurs sur socket AM3+ - Prise en charge des processeurs sur socket AM3: Processeur Phenom™ II X6 / X4 / X3 / X2 (sauf 920 / 940) / Athlon II X4 / X3 / X2 / Sempron d'AMD - Prêt pour processeurs Huit-Core - Prise en charge d'AMD OverDrive™ avec fonction ACC (Advanced Clock Calibration ou calibrage d'horloge avancé) - Prêt AMD LIVE!™ - Supporte la technologie Cool 'n' Quiet™ d'AMD - FSB 2600 MHz (5.2 GT/s) - Prend en charge la technologie Untied Overclocking - Prise en charge de la technologie Hyper Transport 3.0 (HT 3.0)
Chipsets	- Northbridge: AMD 760G - Southbridge: AMD SB710
Mémoire	- Compatible avec la Technologie de Mémoire à Canal - 2 x slots DIMM DDR3 - Supporter DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, sans amortissement mémoire - Capacité maxi de mémoire système: 16GB
Slot d'extension	- 1 x slot PCI Express 2.0 x16 (PCIE1: mode x16) - 1 x slot PCI
VGA sur carte	- Graphiques intégrés à l'AMD Radeon 3000 - DX10 classe iGPU, nuanceur de pixels 4.0 - mémoire partagée max 512MB - Prend en charge le D-Sub avec une résolution maximale jusqu'à 2048x1536 @ 60Hz
Audio	- 5,1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, Vitesse 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, Vitesse 10/100 Mb/s - Supporte PXE
Panneau arrière	I/O Panel - 1 x port souris PS/2 - 1 x port clavier PS/2

	- 1 x Port VGA - 4 x ports USB 2.0 par défaut - 1 x port LAN RJ-45 avec LED (ACT/LED CLIGNOTANTE et LED VITESSE) - Prise HD Audio: Entrée Ligne / Haut-parleur frontal / Microphone
Connecteurs	- 4 x connecteurs SATA2, prennent en charge un taux de transfert de données pouvant aller jusqu'à 3.0Go/s, supporte RAID (RAID 0, RAID 1, RAID 10 et JBOD), NCQ, AHCI et « Hot Plug » (Branche ment à chaud) - 1 x Embase d'intrusion châssis - 1 x Connecteur pour ventilateur de CPU (br. 4) - 1 x Connecteur pour ventilateur de Châssis (br. 4) - br. 24 connecteur d'alimentation ATX - br. 4 connecteur d'alimentation 12V ATX - Connecteur audio panneau avant - 2 x En-tête USB 2.0 (prendre en charge 4 ports USB 2.0 supplémentaires)
BIOS	- 8Mb AMI Legal BIOS - Support du "Plug and Play" - Compatible pour événements de réveil ACPI 1.1 - Gestion jumperless - Support SMBIOS 2.3.1 - CPU, VCCM, NB Tension Multi-ajustement
CD d'assistance	- Pilotes, utilitaires, logiciel anti-virus (Version d'essai),CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser et Toolbar
Surveillance système	- Contrôle de la température CPU - Mesure de température de la carte mère - Tachéomètre ventilateur processeur - Tachéomètre ventilateur châssis - Ventilateur silencieux pour unité centrale - Commande de ventilateur CPU à plusieurs vitesses - Détection d'OUVERTURE DE BOÎTIER - Monitoring de la tension: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit /XP / XP Media Center / XP 64-bit
Certifications	- FCC, CE, WHQL - Prêt pour ErP/EuP (alimentation Prêt pour ErP/EuP requise)

* Pour de plus amples informations sur les produits, s'il vous plaît visitez notre site web: http://www.asrock.com

Specifiche

Piattaforma	- Micro ATX Form Factor - Condensatore solido per alimentazione CPU
Processore	- Supporto di processori Socket AM3+ - Supporto di processori Socket AM3: AMD Phenom™ II X6 / X4 / X3 / X2 (fatta eccezione per 920 / 940) / Athlon II X4 / X3 / X2 / Sempron - CPU Otto-Core Ready - Supporta AMD OverDrive™ con funzione ACC (Advanced Clock Calibration) - Pronto AMD LIVE!™ - Supporto tecnologia AMD Cool 'n' Quiet™ - FSB 2600 MHz (5.2 GT/s) - Supporta la tecnologia overclocking "slegata" - Supporta la tecnologia Hyper-Transport 3.0 (HT 3.0)
Chipset	- Northbridge: AMD 760G - Southbridge: AMD SB710
Memoria	- Supporto tecnologia Dual Channel Memory - 2 x slot DDR3 DIMM - Supporto DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, momoria senza buffer - Capacità massima della memoria di sistema: 16GB
Slot di espansione	- 1 x alloggiamenti PCI Express 2.0 x16 (PCIE1: modalità x16) - 1 x slot PCI
VGA su scheda	- Grafica AMD Radeon 3000 integrata - DirectX 10, Pixel Shader 4.0 - Memoria massima condivisa 512MB - Supporta D-Sub con risoluzione massima fino a 12048x1536 @ 60Hz
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, Velocità 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, Velocità 10/100 Mb/s - Supporta PXE
Pannello posteriore I/O	I/O Panel - 1 x porta PS/2 per mouse - 1 x porta PS/2 per tastiera - 1 x Porta VGA

	- 4 x porte USB 2.0 già integrate - 1 x porte LAN RJ-45 con LED (LED azione/collegamento e LED velocità) - Connettore HD Audio: ingresso linea / cassa frontale / microfono
Connettori	- 4 x connettori SATA2 3.0Go/s, sopporta RAID (RAID 0, RAID 1, RAID 10 e JBOD) e delle funzioni NCQ, AHCI e “Hot Plug” - 1 x header di intrusione dello chassis - 1 x Connettore CPU ventola (4-pin) - 1 x Connettore Chassis ventola (4-pin) - 24-pin collettore alimentazione ATX - 4-pin connettore ATX 12V - Connettore audio sul pannello frontale - 2 x Collettore USB 2.0 (supporta 4 porte USB 2.0)
BIOS	- 8Mb AMI legal BIOS - Supporta “Plug and Play” - Compatibile con ACPI 1.1 wake up events - Supporta jumperfree - Supporta SMBIOS 2.3.1 - Regolazione multi-voltaggio CPU, VCCM, NB
CD di supporto	- Driver, utilità, software antivirus (Versione dimostrativa), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser e Toolbar
Monitoraggio Hardware	- Sensore per la temperatura del processore - Sensore temperatura scheda madre - Indicatore di velocità per la ventola del CPU - Indicatore di velocità per la ventola del Chassis - Ventola CPU silenziosa - Ventola CPU con controllo di varie velocità - Rilevamento CASE APERTO - Voltaggio: +12V, +5V, +3.3V, Vcore
Compatibilità SO	- Microsoft® Windows® 8 / 8 64 bit / 7 / 7 64 bit / Vista™ / Vista™ 64 bit / XP / XP Media Center / XP 64 bit
Certificazioni	- FCC, CE, WHQL - Predisposto ErP/EuP (è necessaria l’alimentazione predis posta per il sistema ErP/EuP)

* Per ulteriori informazioni, prego visitare il nostro sito internet: http://www.asrock.com

Especificación

Plataforma	- Factor forma Micro ATX - Condensador sólido para alimentación de CPU
Procesador	- Compatibilidad con procesadores con conector AM3+ - Compatibilidad con procesadores con conector AM3: procesador AMD Phenom™ II X6 / X4 / X3 / X2 (excepto 920 / 940) / Athlon II X4 / X3 / X2 / Sempron - Compatible con CPU de ocho núcleo - Compatible con AMD OverDrive™ con la función ACC (Calibración Avanzada de Reloj) - Compatible con AMD LIVE!™ - Con soporte para tecnología Cool 'n' Quiet™ de AMD - FSB 2600 MHz (5.2 GT/s) - Admite tecnología de aumento de velocidad liberada - Soporta Tecnología de Hiper-Transporte 3.0 (HT 3.0)
Chipset	- North Bridge: AMD 760G - South Bridge: AMD SB710
Memoria	- Soporte de Tecnología de Memoria de Doble Canal - 2 x DDR3 DIMM slots - Apoya DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, memoria de un-buffered - Máxima capacidad de la memoria del sistema: 16GB
Ranuras de Expansión	- 1 x ranura PCI Express 2.0 x16 (PCIE1: modo x16) - 1 x ranura PCI
VGA OnBoard	- Tarjeta gráfica integrada AMD Radeon 3000 - iGPU de clase DX10, Pixel Shader 4.0 - 512MB de Memoria máxima compartida
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, Velocidad 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, Velocidad 10/100 Mb/s - Compatible con PXE
Entrada/Salida de Panel Trasero	I/O Panel - 1 x puerto de ratón PS/2 - 1 x puerto de teclado PS/2 - 1 x puerto VGA - 4 x puertos USB 2.0 predeterminados - 1 x Puerto LAN RJ-45 con LED (LED de ACCIÓN/

	ENLACE y LED de VELOCIDAD) - Conexión de audio: Entrada de línea / Altavoz frontal / Micrófono
Conectores	- 4 x conexiones SATA2, admiten una velocidad de transferencia de datos de hasta 3,0Gb/s, soporta RAID (RAID 0, RAID 1, RAID 10 y JBOD), NCQ, AHCI y "Conexión en caliente" - 1 x Conector de detección de intrusión en el chasis - 1 x Conector de ventilador de CPU (4-pin) - 1 x Conector de ventilador de chasis (4-pin) - 24-pin cabezal de alimentación ATX - 4-pin conector de ATX 12V power - Conector de audio de panel frontal - 2 x Cabezal USB 2.0 (admite 4 puertos USB 2.0 adicionales)
BIOS	- 8Mb AMI legal BIOS - Soporta "Plug and Play" - ACPI 1.1 compliance wake up events - Soporta "jumper free setup" - Soporta SMBIOS 2.3.1 - Múltiple ajuste de CPU, VCCM, NB Voltage
CD de soport	- Controladores, Utilerías, Software de Anti Virus (Versión de prueba), Prueba de CyberLink MediaEspresso 6.5, Google Chrome Browser y Toolbar
Monitor Hardware	- Sensibilidad a la temperatura del procesador - Sensibilidad a la temperatura de la placa madre - Taquímetros de los ventiladores del procesador - Taquímetros de los ventiladores del chasis - Ventilador silencioso del procesador - Control de ajuste de la velocidad del ventilador de la CPU - Control de APERTURA DE CARCASA - Monitor de Voltaje: +12V, +5V, +3.3V, Vcore
OS	- En conformidad con Microsoft® Windows® 8 / 8 64 bits / 7 / 7 64 bits / Vista™ / Vista™ 64 bits / XP / XP Media Center / XP 64 bits
Certificaciones	- FCC, CE, WHQL - Cumple con la directiva ErP/EuP (se requiere una fuente de alimentación que cumpla con la directiva ErP/EuP)

* Para más información sobre los productos, por favor visite nuestro sitio web: http://www.asrock.com

Спецификации

Платформа	- форм-фактор Micro ATX - Твердотельный конденсатор в цепи питания процессора
Процессор	- Поддержка Socket AM3+ процессоров - Поддержка Socket AM3 процессоров: AMD Phenom™ II X6 / X4 / X3 / X2 (не поддерживаются 920 / 940) / Athlon II X4 / X3 / X2 / Sempron - Поддержка восемьиядерных процессоров - Поддержка AMD OverDrive™ с функцией ACC (Advanced Clock Calibration – расширенная калибровка синхросигналов) - Поддержка технологии AMD LIVE! ™ - Поддержка технологии AMD Cool 'n' Quiet™ - FSB 2600 MHz (5.2 GT/s) - Поддержка технологии Untied Overclocking - Поддержка технологии Hyper-Transport 3.0 (HT 3.0)
Набор микросхем	- Северный мост: AMD 760G - Южный мост: AMD SB710
Память	- Поддержка технологии Dual Channel DDR3 Memory Technology - 2 x гнезда DDR3 DIMM - Поддержите DDR3 1866(OC)/1600(OC)/1333/1066 не- ECC, безбуферная память - Макс. 16 Гб
Гнезда расширения	- 1 x слота PCI Express 2.0 x16 (PCIE1: режим x16) - 1 x гнезда PCI
Графика	- Встроенный видеоадаптер AMD Radeon 3000 - iGPU класса DX10, пиксельные шейдеры версии 4.0 - Макс. объем разделяемой памяти 512Мб - Поддержка D-Sub с максимальным разрешением до 2048x1536 @ 60 Гц
Аудиосистема	- 5.1 CH HD Аудио (Кодер-декодер Аудио Realtek ALC662)
ЛВС	- 960GM-VGS3 FX Atheros® PCIE x 1 Gigabit LAN AR8151, Скорость 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x 1 LAN AR8152, Скорость 10/100 Mb/s - Поддержка PXE
Разъемы ввода-вывода на задней панели	I/O Panel - 1 x порт мыши PS/2 - 1 x порт клавиатуры PS/2 - 1 x порт VGA - 4 x порта USB 2.0 на задней панели в стандартной конфигурации - Разъем 1 x RJ-45 LAN с светодиодным индикатором (индикатор ACT/LINK и индикатор SPEED) - Соединитель звуковой подсистемы: линейный вход / передняя колонка / микрофон

Колодки и плате	- 4 x разъема SATA2 3,0 Гбит/с, поддержка функций RAID (RAID 0, RAID 1, RAID 10 и JBOD), NCQ, AHCI и «горячего подключения» - 1 x разъем датчика открытой крышки - 1 x соединитель CPU FAN (4-контактный) - 1 x соединитель Chassis FAN (4-контактный) - 24-контактный Колодка питания ATX - 4-контактный Разъем ATX 12 В - Аудиоразъем передней панели - 2 x Колодка USB 2.0 (одна колодка для поддержки 4 дополнительных портов USB 2.0
BIOS	- 8Mb Лицензированная AMI BIOS - поддержка “Plug and Play” - ACPI 1.1, включение по событиям - поддержка режима настройки без перемычек - поддержка SMBIOS 2.3.1 - Регулировка напряжений CPU, VCCM, NB
Компактдиск поддержки	- Драйверы, Утилиты, Антивирус (пробная версия), Пробная версия программы CyberLink MediaEspresso 6.5, Google Chrome Browser и Toolbar
Контроль оборудования	- Датчики температуры процессора - Датчики температуры корпуса - Тахометры вентиляторов процессора вентилятора - Тахометры вентиляторов корпуса вентилятора - Бесшумный вентилятор ЦП блока - Мультиконтроль скорости вентилятора ЦП - Определение открытой крышки - Контроль напряжения: +12V, +5V, +3.3V, Vcore
Операцион	- Совместимость с Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Поддержка 64-разрядной версии Vista™ / XP / XP Media Center / XP 64-bit
ные системы Сертификаты	- FCC, CE, WHQL - Совместимость с ErP/EuP Ready (требуется блок питания совместимый с ErP/EuP)

* Для детальной информации продукта, пожалуйста посетите наш вебсайт: http://www.asrock.com

Especificações

Plataforma	- Formato Micro ATX - Condensador Solid para alimentação da CPU
CPU	- Suporte para processadores AM3+ - Suporte para processadores AM3: Processador AMD Phenom™ II X6 / X4 / X3 / X2 (exceto 920 / 940) / Athlon II X4 / X3 / X2 / Sempron - Preparado para CPU de oito núcleos - Suporta a tecnologia AMD OverDrive™ com ACC (Advanced Clock Calibration) - Pronto para AMD LIVE!™ - Suporta a tecnologia Cool 'n' Quiet da AMD - FSB de 2600 MHz (5,2 GT/s) - Suporta a tecnologia Untied Overclocking - Suporta a tecnologia Hyper-Transport 3.0 (HT 3.0)
Chipsets	- North Bridge: AMD 760G - South Bridge: AMD SB710
Memória	- Suporte à tecnologia de memória de duplo canal - 2 x slots de DDR3 DIMM - Suporta memória DDR3 1866(OC)/1600(OC)/1333/1066, não ECC, sem tampão - Capacidade máxima de memória do sistema: 16GB
Slots de Expansão	- 1 x slot de PCI Express 2.0 x16 (PCIE1: modo x16) - 1 x slot de PCI
VGA integrado	- Placa gráfica AMD Radeon 3000 integrada - DX10 class iGPU, Pixel Shader 4.0 - Memória partilhada máxima 512MB - Suporta D-Sub com resolução máxima até 2048x1536 @ 60Hz
Áudio	- Áudio HD de 5.1 canais (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, Velocidade 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, Velocidade 10/100 Mb/s - Suporta PXE
Entrada/Saída pelo painel	I/O Panel - 1 x porta para mouse PS/2 - 1 x porta para teclado PS/2 - 1 x porta VGA

	- 4 x portas USB 2.0 padrão - 1 x porta LAN RJ-45 com LED (LED ACT/LIG e LED VELOCIDADE) - Ficha de áudio HD: Entrada de linha / Altifalante frontal / Microfone
Conectores	- 4 x conectores SATA2 a 3,0 Gb/s, com suporte para RAID (RAID 0, RAID 1, RAID 10 e JBOD), NCQ, AHCI e funções Hot Plug - 1 x Conector de intrusão no chassis - 1 x Conector do ventilador da CPU (4 pinos) - 1 x Conector do ventilador da chassis (4 pinos) - Conector de força do ATX de 24 pinos - Conector ATX 12 V de 4 pinos - Conector Áudio do painel frontal - 2 x cabezal USB 2.0 (suporta 4 portas USB 2.0)
BIOS	- 8Mb BIOS oficial da AMI - Suporta dispositivos “Plug and Play” - ACPI 1.1 atendendo a eventos de “wake up” - Suporta dispositivos sem jumper - Suporte para SMBIOS 2.3.1 - CPU, VCCM, NB Voltage Multi-adjustment
CD de suporte	- Controladores, utilitários, software antivírus (Experimentacao Versao), CyberLink MediaEspresso 6.5 versão de demonstração, Navegador Google Chrome e Barra de Ferramentas
Monitor do HW	- Sensores de temperature do procesador - Medição de temperatura da placa-mãe - Tacômetros de ventilador do Processador - Tacômetros de ventilador do chassis - Ventoinha silenciosa para a CPU - CPU Fan Controle Multi-Velocidade - Detecção de ABERTURA da CAIXA - Monitoramento de voltagem : +12 V, +5 V, +3.3 V, Vcore
Sistema Operacional	- Microsoft® Windows® 8 / 8 de 64 bits / 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits / XP / XP Media Center / XP de 64 bits
Certificações	- FCC, CE, WHQL - “ErP/EuP Ready” (é necessária alimentação eléctrica “ErP/EuP Ready”)

* Para informações mais detalhadas por favor visite o nosso sítio Web: http://www.asrock.com

Özellikler

Platform	- Micro ATX Form Faktörü - CPU gücü için Katı Kapasitör
CPU	- Soket AM3+ işlemcileri desteği - Soket AM3 işlemcileri desteği: AMD Phenom™ II X6 / X4 / X3 / X2 (920 / 940 hariç) / Athlon II X4 / X3 / X2 / Sempron işlemcileri - Sekiz Çekirdekli CPU Desteği - ACC цzellikli (Geliюmiю Saat Kalibrasyonu) AMD OverDrive™'ə destekler - AMD LIVE!™ Hazər - AMD'nin Cool 'n' Quiet™ Teknolojisini Destekler - FSB 2600 MHz (5,2 GT/sn) - Untied Overclocking Teknolojisini destekler - Hyper-Transport 3.0 (HT 3.0) Teknolojisini Destekler
Yonga seti	- Kuzey Köprüsü: AMD 760G - Güney Köprüsü: AMD SB710
Bellek	- Çift Kanallı DDR3 Belleği Teknolojisi - 2 x DDR3 DIMM yuva - DDR3 1866(OC)/1600(OC)/1333/1066 ECC olmayan, ara belleksiz bellek - Sistem belleğinin maks. kapasitesi: 16 GB
Genişletme Yuvası	- 1 x PCI Express 2.0 x16 yuva (PCIE1: x16 modu) - 1 x PCI yuva
Grafikler	- Entegre AMD Radeon 3000 grafik kartə - DX10 sənəfə iGPU, Shader Model 4.0 - Maks. paylaюəlan bellek 512 MB - 60Hz'de 2048x1536'ya kadar maks. зцzьпьrlьkle D-Sub'ə destekler
Ses	- 5,1 Kanal HD Ses (Realtek ALC662 Ses Kodeki)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, 10/100/1000 Mb/sn - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, 10/100 Mb/sn - PXE'yi destekler
Arka Panel	G/3 Paneli - 1 x PS/2 Fare Portu - 1 x PS/2 Klavye Portu - 1 x VGA Portu - 4 x Kullanıma Hazır USB 2.0 Portu

	- 1 x RJ-45 LAN Portu, LED'li (AKT/LƏNK LED'i ve HIZ LED) - HD Ses Jakı: Hat Girişi / Ön Hoparlör / Mikrofon
Konektör	- 4 x SATA2 3,0Gb/sn, donanım RAID (RAID 0, RAID 1, RAID 10 ve JBOD), NCQ, AHCI ve "Sistem Açıkken Bileşen Takma" işlevlerini - 1 x Kasaya Yetkisiz Erişim fişi - 1 x CPU FAN konektörü (4 pin) - 1 x Kasa FAN konektörü (4 pin) - 24 pin ATX güç konektörü - 4 pin 12V güç konektörü - Ön panel ses konektörü - 2 x USB 2.0 fiş (4 USB 2.0 portu destekler)
BIOS Özelliği	- 8Mb destekli AMI Geçerli BIOS - "Tak Çalıştır"ı destekler - ACPI 1.1 Uyumlu Uyandırma Olayları - Jumpersız ayarlamayı destekler - SMBIOS 2.3.1 Desteği - CPU, VCCM, NB Voltaj Çoklu ayarı
Destek CD'si	- Sürücüler, Yardımcı Programlar, AntiVirüs Yazılımı (Deneme Sürümü), CyberLink MediaEspresso 6.5 Deneme Sürümü, Google Chrome Browser ve Toolbar
Donanım Monitör	- CPU Sıcaklık Duyarlılığı - Kasa Sıcaklık Duyarlılığı - CPU Fan Takometresi - Kasa Fan Takometresi - İşlemci Sessiz Fanı - CPU Fan Çoklu-Hız Kontrolü - KASA AÇIK algılaması - Voltaj İzleme: +12V, +5V, +3,3V, Vcore
İS	- Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit uyumlu
Sertifikalar	- FCC, CE, WHQL - ErP/EuP Hazır (ErP/EuP hazır güç kaynağı gerekli)

* Ayrıntılı ürün bilgileri için lütfen web sitemizi ziyaret edin: http://www.asrock.com

설명서

플랫폼	- Micro ATX 폼 팩터 - CPU 전원용 솔리드 콘덴서
CPU	- Socket AM3+ 프로세서에 대한 지원 - Socket AM3 프로세서에 대한 지원 : AMD Phenom™ II X6 / X4 / X3 / X2 (920/940 제외) / Athlon II X4 / X3 / X2 / Sempron 프로세서 - 8- 코어 CPU 지원 - ACC 기능이 있는 AMD OverDrive™ 지원 (고급 클럭 보정) - AMD LIVE!™ 작동 가능 - AMD 의 Cool 'n' Quiet™ 기술 지원 - FSB 2600 MHz (5.2 GT/s) - 언타이드 오버클러킹 (Untied Overclocking) 기술 지원 - 하이퍼 트랜스포트 3.0 (HT 3.0) 기술 지원
칩셋	- 노스브릿지 : AMD 760G - 사우스 브릿지 : AMD SB710
메모리	- 듀얼 채널 메모리 기술 지원 - DDR3 DIMM 슬롯 2 개 - DDR3 1866(OC)/1600(OC)/1333/1066 비 -ECC, 언버퍼드 메모리를 지원 - 최대 시스템 메모리 용량 : 16GB
확장 슬롯	- 1 x PCI Express 2.0 x16 슬롯 (PCIE1: x16 모드) - 1 개의 PCI 슬롯
온보드 VGA	- 통합 AMD Radeon 3000 그래픽 - DX10 클래스 iGPU, Pixel Shader 4.0 - 최대 공유 메모리 512MB - 최대 해상도 2048x1536 @ 60Hz 까지 D-Sub 지원
오디오	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
랜	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, 속도 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, 속도 10/100 Mb/s - PXE 지원
후면판 I/O	I/O Panel - 1 개 PS/2 마우스 포트 - 1 개 PS/2 키보드 포트 - 1 개의 VGA 포트 - 4 개디폴트 USB 2.0 포트 - 1 개 LED(ACT/LINK LED 및 SPEED LED) 가 있는 RJ-45

	LAN 포트 - 오디오 잭 : 라인 인 / 전방 스피커 / 마이크
온보드 헤더 및 커넥터	- 4 개 의 SATA2 3.0Gb/s 커넥터 , RAID (RAID 0, RAID 1, RAID 10 및 JBOD) 기능지원 , NCQ, AHCI 및 “핫 플러그” 기능 지원 - 섀시 침입 헤더 1 개 - CPU 팬 커넥터 1 개 (4 핀) - 섀시 팬 커넥터 1 개 (4 핀) - 24 핀 ATX 전원 헤더 - 4 핀 ATX 12V 파워 콘넥터 - 전면부 오디오 콘넥터 - USB 2.0 헤더 2 개 (4 개의 추가 USB 2.0 포트를 지원하는 헤더 2 개)
BIOS	- 8Mb AMI 에 따른 바이오스 - “플러그 앤 플레이” 지원 - ACPI 1.1 웨이크 - 업 이벤트와의 호환 - 점퍼 프리 지원 - 점퍼 프리 지원 ; SMBIOS 2.3.1 지원 - CPU, VCCM, NB 전압 멀티 조절
지원 CD	- 드라이버 , 유틸리티 , 안티바이러스 소프트웨어 (시험판), CyberLink MediaEspresso 6.5 평가판 , Google Chrome Browser 및 Toolbar
하드웨어 모니터	- CPU 온도 감지 - 마더보드 온도 감지 - CPU 팬 회전 속도계 : 샤시 (케이스) 팬 회전 속 도계 - 섀시 팬 회전 속도계 : 샤시 (케이스) 팬 회전 속 도계 - CPU 저소음 팬 - CPU 팬 멀티스피드 컨트롤 - 케이스 열림 감지 - 전압 감시 기능 : +12V,+5V,+3.3V,Vcore
OS	- 마이크로 소프트 Windows® 8/8 64 비트 /7/7 64 비트 /Vista™/ Vista™ 64 비트 /XP/XP Media Center/XP 64 비트 와 호환
인증서	- FCC, CE, WHQL - ErP/EuP 지원 (ErP/EuP 지원 전원 공급기가 요구됨)

* 상세한 제품정보는 당사의 웹사이트를 방문할수있습니다 . http://www.asrock.com

한국어

仕様

プラットフォーム	- Micro ATX フォームファクター - CPU 電源用固体コンデンサ
CPU	- Socket AM3+ プロセッサのサポート - Socket AM3 プロセッサのサポート:AMD Phenom™ II X6 / X4 / X3 / X2(920 / 940 を除く) / Athlon II X4 / X3 / X2 / Sempron プロセッサ - 8-Core CPU 搭載 - ACC (アドバンストクロック較正) 機能で AMD OverDrive™ をサポートします - AMD LIVE!™ 対応 - AMD 社 Cool 'n' Quiet™ をサポート - FSB 2600 MHz (5.2 GT/s) - Untied Overclocking をサポート - Hyper-Transport 3.0 (HT 3.0) をサポート
エップセット	- ノースブリッジ : AMD 760G - サウスブリッジ : AMD SB710
メモリー	- デュアルエャンネル DDR3 メモリーテクノロジー - DDR3 DIMM スロット x 2 - DDR3 1866(OC)/1600(OC)/1333/1066 non-ECC, un-buffered メモリーに対応 - システムメモリの最大容量 : 16GB
拡張スロット	- 1 x PCI Express 2.0 x16 スロット (PCIE1: x16 モード) - 1 x PCI スロット
グラフィック	- 統合された AMD Radeon 3000 シリーズ - DX10 class iGPU、Pixel Shader 4.0 - 最大の共有メモリ 512MB - 2048x1536 @ 60Hz の最大解像度で D-Sub をサポート
オーディオ	- 5.1 CH HD オーディオ (Realtek ALC662 オーディオ Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, 速度 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, 速度 10/100 Mb/s - PXE をサポート
リアパネル I/O	I/O Panel - PS/2 マウスポート x 1 - PS/2 キーボードポート x 1 - VGA ポート x 1 - Ready-to-Use USB 2.0 ポート x 4

	- LED(ACT/LINK LED および SPEED LED)付き RJ-45 LAN ポート x 1 - オーディオジャック: 入力、前部スピーカー、マイク入力
コネクター	- 4 x SATA2 3.0Gb/秒コネクタが、RAID (RAID 0, RAID 1, RAID 10 および JBOD) をサポート, NCQ, AHCI および "Hot Plug" (ホットプラグ) 機能 - シャーシ侵入ヘッダ x 1 - CPU ファンコネクタ x 1 (4 ピン) - シャーシファンコネクタ x 1 (4 ピン) - 24 ピン ATX 電源コネクター - 4 ピン 12V 電源コネクター - フロントパネルオーディオコネクター - USB 2.0 ヘッダー (USB 2.0 用 4 ポートをサポート) x 2
BIOS 関連機能	- 8Mb AMI Legal BIOS - プラグ&プレイをサポート - ACPI 1.1 準拠ウェイクアップイベント - jumperfree モードサポート - SMBIOS 2.3.1 サポート - CPU、VCCM、NB ブリッジ電圧
サポート CD	- ドライバー、ユーティリティ、アンチウィルスソフトウェアハードウェア (体験版)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser および Toolbar
モニター	- CPU 温度検知 - マザーボード温度検知 - CPU ファンタコメータ - シャーシファンタコメータ - CPU 静音ファン - CPU ファンマルチ速度制御 - ケースオープン検出 - 電源モニター: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 8/8 64-bit/7/7 64-bit/Vista™/ Vista™ 64-bit/XP/XP Media Center/XP 64-bit compliant
認証	- FCC, CE, Microsoft® WHQL 認証済み - ErP/EuP 対応(ErP/EuP 対応の電源装置が必要です)

* 製品の詳細については、http://www.asrock.com を御覧なさい。

日本語

主板规格

架构	– Micro ATX 规格 – CPU 供电电路固态电容
处理器	– 支持 Socket AM3+ 处理器 – 支持 Socket AM3 处理器：AMD Phenom™ II X6 / X4 / X3 / X2(920/940 除外) / Athlon II X4 / X3 / X2 / Sempron 处理器 – 八核心 CPU 就绪 – 通过 ACC（高级时钟校准）功能支持 AMD OverDrive™ 系统调节 – AMD LIVE!™ Ready – 支持 AMD Cool 'n' Quiet™ 冷静技术 – 支持 FSB 2600 MHz (5.2 GT/s) – 支持异步超频技术 – 支持 Hyper-Transport 3.0 (HT 3.0) 技术
芯片组	– 北桥：AMD 760G – 南桥：AMD SB710
系统内存	– 支持双通道内存技术 – 配备 2 个 DDR3 DIMM 插槽 – 支持 DDR3 1866(超频)/1600(超频)/1333/1066 non-ECC、un-buffered 内存 – 系统最高支持 16GB 容量
扩展插槽	– 1 x PCI Express 2.0 x16 插槽 (PCIE1: x16 模式) – 1 x PCI 插槽
板载显卡	– 集成 AMD Radeon 3000 显卡 – DX10 级别 iGPU, Pixel Shader 4.0 技术 – 最大共享内存 512MB – 支持 D-Sub，最高分辨率达 2048x1536 @ 60Hz
音效	– 5.1 声道高保真音频 (Realtek ALC662 音频编解码器)
板载 LAN 功能	– 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151， 速度 :10/100/1000 Mb/s – 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152，速度 :10/100 Mb/s – 支持 PXE
Rear Panel I/O（后面板输入 / 输出接口）	I/O 界面 – 1 个 PS/2 鼠标接口 – 1 个 PS/2 键盘接口 – 1 个 VGA 接口 – 4 个可直接使用的 USB 2.0 接口

	– 1 个 RJ-45 局域网接口与 LED 指示灯 (ACT/LINK LED 和 SPEED LED) – 高保真音频插孔：音频输入 / 前置喇叭 / 麦克风
连接头	– 4 x SATA2 3.0Gb/s 连接头，支持 RAID (RAID 0, RAID 1, RAID 10 和 JBOD), NCQ, AHCI 和热插拔功能 – 1 x 机箱开启警告功能接针 – 1 x CPU 风扇接头 (4 针) – 1 x 机箱风扇接头 (4 针) – 24 针 ATX 电源接头 – 4 针 12V 电源接头 – 前置音频面板接头 – 2 x USB 2.0 接口 (可支持 4 个额外的 USB 2.0 接口)
BIOS	– 8Mb AMI Legal BIOS – 支持即插即用 (Plug and Play,PnP) – ACPI 1.1 电源管理 – 支持唤醒功能 – 支持 jumperfree 免跳线模式 – 支持 SMBIOS 2.3.1 – CPU, VCCM, NB 电压多功能调节器
支持光盘	– 驱动程序、工具软件、杀毒软件 (测试版本)、CyberLink MediaEspresso 6.5 试用版、Chrome 谷歌浏览器和工具栏
硬件监控器	– CPU 温度侦测 – 主板温度侦测 – CPU 风扇转速计 – 主板风扇转速计 – CPU 静音风扇 – CPU 风扇多速控制 – 机箱开启侦测 – 电压范围：+12V, +5V, +3.3V, 核心电压
操作系统	– Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元 /XP/XP Media Center/XP 64 位元适用于此主板
认证	– FCC, CE, WHQL – 支持 ErP/EuP(需要同时使用支持 ErP/EuP 的电源供应器)

* 请参阅华擎网站了解详细的产品信息： http://www.asrock.com

电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及 SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为 10 年。

图一

有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注： 此产品所标示之环保使用年限，系指在一般正常使用状况下。

主機板規格

架構	- Micro ATX 規格 - CPU 供電電路固態電容
處理器	- 支援 Socket AM3+ 處理器 - 支援 Socket AM3 處理器：AMD Phenom™ II X6 / X4 / X3 / X2(920 / 940 除外) / Athlon II X4 / X3 / X2 / Sempron 處理器 - 八核心 CPU 就緒 - 透過 ACC(先進時脈校正) 技術支援 AMD OverDrive™ 系統調整 - AMD LIVE!™ Ready - 支援 AMD Cool 'n' Quiet 冷靜技術 - 支援 FSB 2600 MHz (5.2 GT/s) - 支援非同步超頻技術 - 支援 Hyper-Transport 3.0 (HT 3.0) 技術
晶片組	- 北橋：AMD 760G - 南橋：AMD SB710
系統記憶體	- 支援雙通道記憶體技術 - 2 個 DDR3 DIMM 插槽 - 支援 DDR3 1866(超頻)/1600(超頻)/1333/1066 non-ECC、un-buffered 記憶體 - 系統最高支援 16GB 容量
擴充插槽	- 1 x PCI Express 2.0 x16 插槽 (PCIE1: x16 模式) - 1 x PCI 插槽
內建顯示	- 內建 AMD Radeon 3000 顯示 - DX10 級別 iGPU, Pixel Shader 4.0 技術 - 最大共享記憶體 512MB - 支援 D-Sub, 最高解析度達 2048x1536 @ 60Hz
音效	- 5.1 聲道高清晰音效 (Realtek ALC662 音效編解碼器)
網路功能	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, 速度 :10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, 速度 :10/100 Mb/s - 支援 PXE
Rear Panel I/O (後背板輸入 / 輸出接口)	I/O 界面 - 1 個 PS/2 滑鼠接口 - 1 個 PS/2 鍵盤接口 - 1 個 VGA 接口 - 4 個可直接使用的 USB 2.0 接口

	- 1 個 RJ-45 區域網接口與 LED 指示燈 (ACT/LINK LED 和 SPEED LED) - 高清晰音效插孔：音效輸入 / 前置喇叭 / 麥克風
接頭	- 4 x SATA2 3.0Gb/s 接頭，支援 RAID (RAID 0, RAID 1, RAID 10 和 JBOD), NCQ, AHCI 和熱插拔功能 - 1 x 機殼開啟警告功能接頭 - 1 x CPU 風扇接頭 (4 針) - 1 x 機箱風扇接頭 (4 針) - 24 針 ATX 電源接頭 - 4 針 12V 電源接頭 - 前置音效接頭 - 2 x USB 2.0 接口 (可支援 4 個額外的 USB 2.0 接口)
BIOS	- 8Mb AMI Legal BIOS - 支援即插即用 (Plug and Play,PnP) - ACPI 1.1 電源管理 - 支援喚醒功能 - 支援 jumperfree 免跳線模式 - 支援 SMBIOS 2.3.1 - CPU,VCCM,NB 電壓多功能調節器
支援光碟	- 驅動程式、工具軟體、防毒軟體 (試用版本)、CyberLink MediaEspresso 6.5 試用版、Google Chrome Browser 和 Toolbar
硬體監控	- CPU 溫度偵測 - 主機板溫度偵測 - CPU 風扇轉速計 - 機箱風扇轉速計 - CPU 靜音風扇 - CPU 風扇多速控制 - 機殼開啟偵測 - 電壓範圍：+12V, +5V, +3.3V, 核心電壓
操作系統	- Microsoft® Windows® 8/8 64 位元 /7/7 64 位元 /Vista™/ Vista™ 64 位元 /XP/XP Media Center/XP 64 位元
認證	- FCC, CE, WHQL - 支援 ErP/EuP(需要同時使用支援 ErP/EuP 的電源供應器)

* 請參閱華擎網站了解詳細的產品訊息：http://www.asrock.com

Spesifikasi

Podium	- Faktor Form Mikro ATX - Kapasitor Solid untuk daya CPU
CPU	- Stopkontak AM3+ - Stopkontak AM3 untuk AMD Phenom™ II X6 / X4 / X3 / X2 (kecuali 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processor - Dukungan CPUT Delapan Inti - Mendukung AMD OverDrive™ dengan fitur ACC (Advanced Clock Calibration [Kalibrasi Clock Lanjutan]) - AMD LIVE!™ Dipersiapkan - Dapat digunakan AM's Cool 'n' Quiet™ Technology - FSB 2600 MHz (5.2 GT/s) - Menggunakan Teknologi Untied Overclocking - Dapat digunakan Hyper-Transport 3.0 (HT 3.0) Technology
Grup Chip	- Jembatanutara: AMD 760G - Jembatanselatan: AMD SB710
Ingatan	- Teknologi ingatan DDR3 dwisaluran - 2 x Alur DDR3 DIMM - Menggunakan DDR3 1866(OC)/1600(OC)/1333/1066 - Kapasitas paling banyak: 16GB
Alur Ekspansi	- 1 x PCI Express 2.0 x16 slot (PCIE1: mode x16) - 1 x Alur PCI
Diagram	- Integrated AMD Radeon 3000 graphics - DX10 class iGPU, Shader Model 4.0 - Ingatan sama Max. 512MB - Mendukung D-Sub dengan resolusi maksimal hingga 2048x1536 @ 60Hz
Audio	- 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
LAN	- 960GM-VGS3 FX Atheros® PCIE x1 Gigabit LAN AR8151, kecepatan 10/100/1000 Mb/s - 960GM-VS3 FX Atheros® PCIE x1 LAN AR8152, kecepatan 10/100 Mb/s - Mendukung PXE
Papan Belakang I/O	I/O Panel - 1 x Port Mouse PS/2 - 1 x Port Keyboard PS/2 - 1 x Port VGA - 4 x Port USB 2.0 siap-dipakai

	- 1 x RJ-45 LAN Port LED (ACT/LINK LED dan SPEED LED) - HD Audio Jack: Line in / Penyuara Depan / mikropon
Penghubung	- 4 x penghubung SATA2 3.0Gb/s, dapat digunakan RAID (RAID 0, RAID 1, RAID 10 dan JBOD), NCQ, AHCI, dan fungsi fungsi “Hot Plug” - 1 x Chassis Intrusion header - 1 x Penghubung KIPAS CPU (4 pin) - 1 x Penghubung KIPAS casis (4 pin) - Penghubung power 24 pin ATX - Penghubung power 4 pin 12V - Penghubung audio panel dapan - 2 x USB 2.0 header (menggunakan 4 port USB 2.0)
Ciri-ciri BIOS	- 8Mb AMI Legal BIOS - Menggunakan “Plug and Play” - ACPI 1.1 Compliance Wake Up Events - Menggunakan jumperfree - Penyokong AMBIOS 2.3.1 - Penyesuaian berbagai tegangan CPU, VCCM, NB
Sokongan CD	- Penggerak, kegunaan, Software AntiVirus (Versi Cobaan), CyberLink MediaEspresso 6.5 Trial, Google Chrome Browser dan Toolbar
Penjaga Hardware	- Perasa Suhu CPU - Perasa Suhu Casis - Pengukur Kipas CPU - Pengukur Kipas casis - Kipas CPU Senyap - Kontrol Multi-Kecepatan Kipas CPU - Deteksi CASING TERBUKAr - Penjagaan voltasi: +12V, +5V, +3.3V, Vcore
OS	- dapat digunakan Microsoft® Windows® 8 / 8 64-bit / 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit
Sertifikasi	- FCC, CE, WHQL - ErP/EuP Ready (memerlukan catu daya ErP/EuP ready)

* Untuk informasi rinci, silakan kunjungi website kami: http://www.asrock.com